

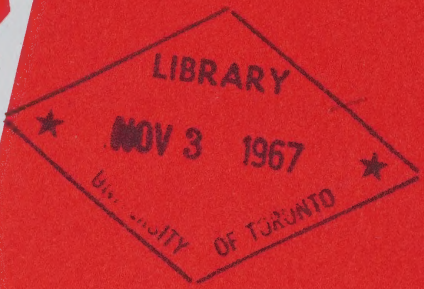
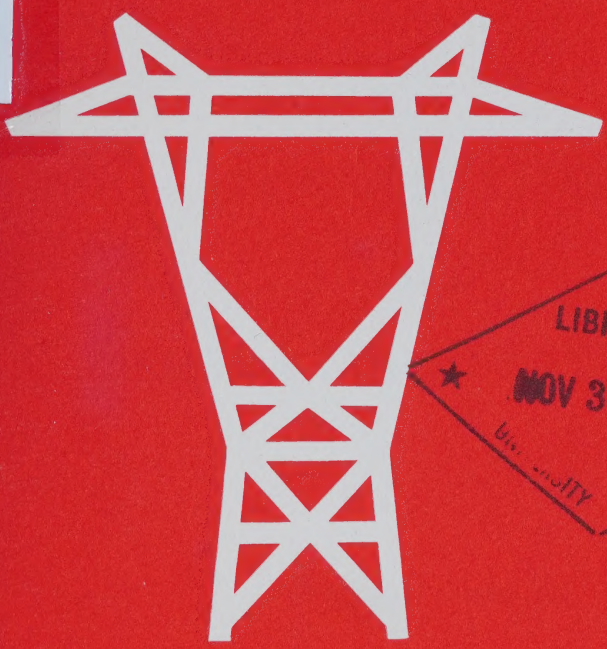
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# ELECTRIC POWER IN CANADA

MAP SUPPLEMENT • PRAIRIE PROVINCES

#### **NOTE**

*Effective January 1, 1966, the Water Resources Branch was transferred from the Department of Northern Affairs and National Resources to the Department of Mines and Technical Surveys, pending the establishment by Parliament of the proposed new Department of Energy and Resources.*



# TRANSMISSION AND GENERATING FACILITIES

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Prairie Provinces

HYDRO  
DEPARTMENT OF MINES AND TECHNICAL SURVEYS  
WATER RESOURCES BRANCH





TRANSMISSION  
AND  
GENERATING FACILITIES

Prairie Provinces

ROGER DUHAMEL, F.R.S.C.  
Queen's Printer and Controller of Stationery  
Ottawa, 1966

HYDRO

# HYDRO

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.

## Alberta

1	Big Bend	Brazeau	CP	1965	-	386	1	210,000	210,000	144,000	144,000
2	Spray	Spray Diversion	CP	1951	1960	875	2	62,000	124,000	40,400	80,800
3	Rundle	Spray Diversion	CP	1951	1960	318	1	23,000		17,000	
						317	1	40,000	63,000	29,750	46,750
4	Ghost	Bow	CP	1929	1954	105	2	18,000		12,750	
						92	1	30,000	66,000	21,150	46,650
5	Cascade	Cascade	CP	1942	1957	320	2	23,000	46,000	17,000	34,000
6	Horseshoe	Bow	CP	1953	1955	72	2	4,680		3,375	
							2	7,500	24,360	5,625	18,000
7	Kananaskis	Bow	CP	1913	1951	68	2	6,000		3,400	
						70	1	12,000	24,000	9,560	16,360
8	Bearspaw	Bow	CP	1954	-	48	1	20,750	20,750	15,300	15,300
9	Pocaterra	Kananaskis	CP	1955	-	185	1	18,400	18,400	13,500	13,500
10	Pumping-Generating Station	Brazeau	CP	1965	-	-	1	12,500	12,500	9,720	9,720
11	Barrier	Kananaskis	CP	1947	-	135	1	13,500	13,500	9,560	9,560
12	Interlakes	Kananaskis	CP	1955	-	98	1	6,900	6,900	5,040	5,040
13	Three Sisters	Spray Diversion	CP	1951	-	50	1	3,600	3,600	3,400	3,400

Total capacity of plants under 1,500 kw.

1,940

1,430

Total capacity of turbine connected directly to mechanical equipment

Total (all plants)

634,950

444,510

## Saskatchewan

1	Squaw Rapids	Saskatchewan	SPC	1963	1964	107	6	46,000	276,000	33,500	201,000
2	Island Falls	Churchill	CRPC	1930	1959	56	3	16,500		11,880	
							3	19,000		18,000	
							1	19,000	125,500	17,100	106,740

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.

## SASKATCHEWAN (Cont'd)

3	Waterloo Lake	Charlot	EMR	1961	-	63	1	10,000	10,000	7,500	7,500
4	Wellington Lake	Charlot	CMSC	1939	1960	70	2	3,300	6,600	2,400	4,800

Total capacity of plants under 1,500 kw.

-

Total capacity of turbines connected directly to mechanical equipment

-

Total (all plants)

418,100

320,040

*Manitoba*

1	Grand Rapids	Saskatchewan	MH	1965	1965	-	3	150,000	450,000	110,000	330,000
2	Kelsey	Nelson	MH	1960	1961	50	5	42,000	210,000	33,750	168,750
3	Seven Sisters	Winnipeg	MH	1931	1952	66	6	37,500	225,000	27,625	165,750
4	Great Falls	Winnipeg	MH	1923	1928	58	6	28,000	168,000	18,900	113,400
5	Pine Falls	Winnipeg	MH	1951	1952	37	6	19,000	114,000	13,950	83,700
6	Slave Falls	Winnipeg	WH	1931	1948	30	8	12,000	96,000	9,000	72,000
7	Pointe du Bois	Winnipeg	WH	1911	1925	45	5	5,200		3,000	
							3	6,800		4,000	
							3	6,900		5,200	
							3	7,300		5,200	
							2	8,000	105,000	5,200	68,600
8	McArthur Falls	Winnipeg	MH	1954	1955	23	8	10,000	80,000	7,650	61,200
9	Laurie River No. 2	Laurie	SGM	1958	-	55	1	7,000	7,000	5,400	5,400
10	Laurie River No. 1	Laurie	SGM	1950	1952	55	2	3,500	7,000	2,475	4,950

Total capacity of plants under 1,500 kw.

-

Total capacity of turbines connected directly to mechanical equipment


-

Total (all plants)

1,462,000

1,073,750





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# THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.

## Alberta

1	Edmonton	Edmonton	CE	1939	1963	Gas, oil	S	2 3 2	15,000 30,000 75,000	
							GT	2	30,000	330,000
2	Wabamun	Wabamun	CP	1956	1962	Gas, coal	S	2 1	66,000 150,000	282,000
3	Battle River	Forestburg	CU	1956	1964	Coal, oil	S	2	33,000	66,000
4	Vermilion	Vermilion	CU	1948	1961	Gas	S	4	2,250	
							GT	1	30,000	39,000
5	Medicine Hat	Medicine Hat	CMH	1929	1953	Gas	S	1 1 1	3,000 5,000 30,000	38,000
6	Lethbridge	Lethbridge	CL	1931	1961	Gas	S	1 2	3,375 5,000	
							GT	2	10,000	33,375
7	Hinton	Hinton	NWPP	1956	1957	Gas, wood-waste, oil	S IC	1 1 1	20,000 1,100 1,000	22,100
8	Sturgeon	Valleyview	CU	1958	1961	Flare gas	GT	1 1	10,000 8,500	18,500
9	Clover Bar	Edmonton	CCCL	1953	1953	Gas	S	3	6,000	18,000
10	Drumheller	Drumheller	CU	1928	1952	Coal	S	2 1	7,500 2,500	17,500
11	Duvernay	Duvernay	WC	1953	1958	Gas	S	3 1	300 1,200	
							IC	6	500	
							GT	1	8,437	13,537
12	Fairview	Fairview	CU NU NU	1954	1960	Gas	IC	1 3 1	1,200 3,000 1,200	11,400
13	Sentinel	Coleman	EKPC	1927	1929	Coal	S	2	5,000	10,000
14	Edmonton	University	DPW	1960	1963	Gas	GT S S	1 1 1	2,200 5,000 2,000	9,200
15	Fort Saskatchewan	Fort Saskatchewan	SGM	1954	1959	Gas	S	2	2,500	5,000
16	Whitecourt	Whitecourt	PAPC	1958	1964	Gas	IC	2 5	300 800	4,600
17	Rimbey	Rimbey	BA	1960	1963	Gas	S	4	1,000	4,000
18	Grande Prairie	Grande Prairie	CU	1948	1955	Gas, oil	IC	1 1 1	800 600 2,500	3,900
19	Taber	Taber	CSF	1950	1960	Gas, oil	S	1 1	2,000 1,675	3,675
20	Jasper	Jasper	NU	1941	1964	Oil	IC	1 1 1 1 1	1,200 474 96 500 300	2,570

## THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.

## ALBERTA (Cont'd)

21	Edmonton	Legislative Bldg.	DPW	1953	1965	Gas	S	2 1	800 500	2,100
22	Picture Butte	Picture Butte	CSF		1964	Gas	S	1 1	1,250 750	2,000
23	Athabasca	Athabasca	CP	1953	1961	Gas	IC	1 2	1,200 300	1,800
24	Fort McMurray	Fort McMurray	FMP		1964	Oil	IC	1 2 1 1 1	500 350 225 150 100	1,675
25	Edmonton	Alberta Hospital	DPW	1929	1954	Gas	S	1 1 1 1	600 500 300 200	1,600
26	Worsley	Worsley	NU	1963	1963		IC	1 1	864 650	1,514
Total capacity of plants 1,500 kw. and over (not listed above)										4,000
Total capacity of plants under 1,500 kw.										11,918
Total (all plants)										959,064

## Saskatchewan

1	Boundary Dam	Estevan	SPC	1959	1960	Coal	S	2	66,000	132,000
2	Queen Elizabeth	Saskatoon	SPC	1958	1959	Gas, oil, coal	S	2	66,000	132,000
3	A.L. Cole	Saskatoon	SPC	1929	1957	Coal, oil, gas	S	1 1 2 1	10,000 15,000 25,000 30,000	105,000
4	Regina	Regina	SPC	1925	1960	Oil, gas	S	1 1 1 1	15,000 5,000 20,000 30,000	
							GT	1	23,360	93,360
5	Estevan	Estevan	SPC	1929	1957	Coal, gas	S	1 1 1 1	5,000 15,000 20,000 30,000	70,000
6	Kindersley	Kindersley	SPC	1955	1958	Gas	IC	3	3,000	
							GT	2	10,000	29,000
7	Moose Jaw	Moose Jaw	SPC	1930	1952	Oil, gas	S	1 1	10,000 15,000	25,000
8	Kalium	Kalium	KC	1964	1964	Gas	S	2	7,500	15,000



# THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.
SASKATCHEWAN (Cont'd)										
9	Swift Current	Swift Current	SPC	1954	1957	Oil	IC	2 4	1,275 3,000	14,550
10	Eldorado	Eldorado	EMR	1952	1956	Residual oil	IC	2 2 4	392 382 2,250	10,548
11	Flin Flon	Flin Flon (Saskatchewan)	HBMS	1929	1951	Coal, oil	S	1 1	1,000 6,000	7,000
Total capacity of plants 1,500 kw. and over (not listed above)										10,000
Total capacity of plants under 1,500 kw.										4,143
Total (all plants)										647,601

# Manitoba

1	Brandon	Brandon	MH	1957	1958	Coal, gas, oil	S	4	33,000	132,000
2	Selkirk	Selkirk	MH	1960	1960	Coal, oil	S	2	66,000	132,000
3	Amy Street	Winnipeg	WH	1924	1954	Coal	S	2 1 1	5,000 15,000 25,000	50,000
4	The Pas	The Pas	MH	1948	1962	Oil	IC	1 3 1 1	1,100 1,000 750 400	5,250
5	Churchill	Churchill	NHB	1931	1955	Grain refuse, oil, coal	S IC	2 1 1 1	1,500 600 200 250	4,050
6	Fort Garry	Winnipeg	MSC	1940	1953	Oil	S	1 1	1,500 2,500	4,000
7	Thompson	Thompson	INCO		1958	Oil	IC	2	1,500	3,000
8	Grand Rapids	Grand Rapids	MH	1961	1963	Oil	IC	1 1 1	1,000 350 150	1,500
Total capacity of plants 1,500 kw. and over (not listed above)										4,000
Total capacity of plants under 1,500 kw.										3,016
Total (all plants)										338,816

## OWNER CODE INDEX

CODE	OWNER
BA.....	British American Oil Company
CCCL.....	Canadian Chemical Company Limited
CE.....	City of Edmonton
CL.....	City of Lethbridge
CMH.....	City of Medicine Hat
CMSC.....	Consolidated Mining and Smelting Co. of Canada Ltd.
CP.....	Calgary Power Ltd.
CRPC.....	Churchill River Power Company
CSF.....	Canadian Sugar Factories Limited
CU.....	Canadian Utilities Limited
DPW.....	Department of Public Works, Government of Alberta
EKPC.....	East Kootenay Power Company Limited
EMR.....	Eldorado Mining and Refining Limited
FMP.....	Fort McMurray Power Company Limited
HBMS.....	Hudson Bay Mining and Smelting Company Limited
INCO.....	International Nickel Company of Canada Limited
KC.....	Kalium Chemicals Limited
MH.....	Manitoba Hydro
MSC.....	Manitoba Sugar Company Limited
NHB.....	National Harbours Board, Government of Canada
NU.....	Northland Utilities Limited
NWPP.....	North Western Pulp and Power Limited
PAPC.....	Pan American Petroleum Corporation
SGM.....	Sherritt-Gordon Mines Limited
SPC.....	Saskatchewan Power Corporation
WC.....	Western Chemicals Limited
WH.....	Winnipeg Hydro





